



Effort: 20 min

In this lab, you will import a notebook in Watson Studio and perform the Classification

Objectives

After completing this lab, you will be able to:

0. Import a Notebook in Watson Studio
1. Solve Classification Problem

IBM Watson Setup

If you have not created a Watson service before proceed with Step 1, otherwise go to Step 2:

Step 1: For New Users (with no Watson service):

For this project, you will use your IBM Watson Studio account from the previous chapter.

Go to the IBM Cloud Watson Studio page:

[Click here](#)

You will see the screen in the figure below. Click the icon in the red box:

IBM Cloud

Search resources and offerings...

Q

Catalog

Docs

Support

Manage

IBM Watson Studio

Feedback

Watson Studio

Lite IBM Service IAM-enabled

Need Help?
Contact Support
View docs

Author: IBM • Date of last update: 07/18/2019

CreateAbout

Select a region

Dallas

Select a pricing plan

Monthly prices shown are for country or region: United States

PLAN	FEATURES	PRICING
<div>✓</div> Lite	<div>1 authorized user</div> 50 capacity unit-hours monthly limit 1 free small compute environment with 1 vCPU and 4 GB RAM (does not require capacity unit-hours)	Free
Standard v1	<div>1 authorized user + unlimited viewer collaborators</div> 50 capacity unit-hours included monthly (additional capacity available) Unlimited elastic compute environments Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour Capacity Type: 2 vCPU and 8 GB RAM = 1 capacity units required per hour Capacity Type: 3 vCPU and 12 GB RAM = 1.5 capacity units required per hour Capacity Type: 4 vCPU and 16 GB RAM = 2 capacity units required per hour Capacity Type: 8 vCPU and 32 GB RAM = 4 capacity units required per hour Capacity Type: 16 vCPU and 64 GB RAM = 8 capacity units required per hour Decision Optimization = (Capacity Type) + 20 capacity units required per hour	\$99.00 USD/Instance \$0.50 USD/Capacity Unit-Hour \$99.00 USD/Authorized User
Enterprise v2	<div>5 authorized users + unlimited viewer collaborators</div> 5,000 capacity unit-hours included monthly (additional capacity available) Unlimited elastic compute environments Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour Capacity Type: 2 vCPU and 8 GB RAM = 1 capacity units required per hour Capacity Type: 3 vCPU and 12 GB RAM = 1.5 capacity units required per hour Capacity Type: 4 vCPU and 16 GB RAM = 2 capacity units required per hour Capacity Type: 8 vCPU and 32 GB RAM = 4 capacity units required per hour Capacity Type: 16 vCPU and 64 GB RAM = 8 capacity units required per hour Decision Optimization = (Capacity Type) + 20 capacity units required per hour HIPAA readiness option available in Dallas Multi-Tiered	Expand each section to view details

Summary

Watson StudioFree

Region: Dallas

Plan: Lite

Service name: Watson Studio-jr

Resource group: Default

Create

Add to estimate

View terms

FEEDBACK

Then click **Watson**, as shown below:

IBM Cloud

Search resources and offerings...

Catalog Docs Support Manage

Need Help? Contact Support View docs

Dashboard

Resource List

Cloud Foundry

Kubernetes

OpenShift

VPC Infrastructure

Classic Infrastructure

VMware

API Management

Apple Development

Blockchain

DevOps

Functions

Integrate

Managed Solutions

Mobile

Observability

Schematics

Security

Watson

Web Apps

IO

Lite IBM Service IAM-enabled

update: 07/18/2019

Monthly prices shown are for country or region: United States

PLAN	FEATURES	PRICING
Lite	1 authorized user 50 capacity unit-hours monthly limit 1 free small compute environment with 1 vCPU and 4 GB RAM (does not require capacity unit-hours)	Free
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Summary

Watson Studio

Region: Dallas

Plan: Lite

Service name: Watson Studio-jr

Resource group: Default

Create

Add to estimate

View terms

Then click **Browse Services**.

IBM Cloud

Search resources and offerings...

Catalog Docs Support Manage

Account

Watson

Overview

Starter Kits

Watson Services

Browse Services

Existing Services

Developer Resources

Documentation

SDKs

Learning Resources

Apps

Build with Watson

The AI platform for business

Build a chatbot

Create a chatbot to interact with your customers.

Get Started

Extract insights

Query the news to understand hot topics, sentiment and more.

Get Started

Convert audio into text

Convert speech in multiple languages into text.

Get Started

View all Starter Kits

Browse all Watson services

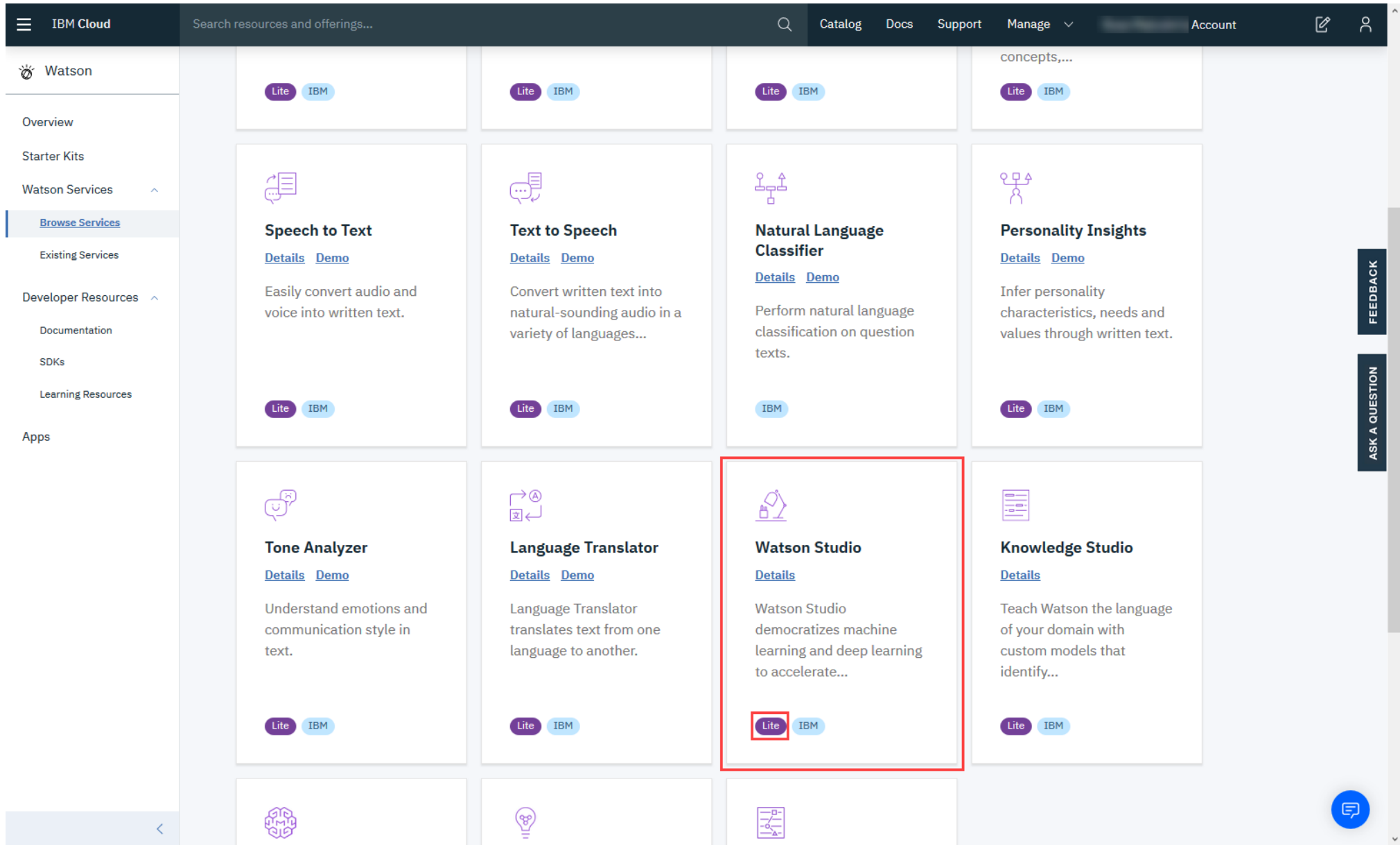
Consult with IBM

Get the most out of your IBM Cloud account by working with our consultants. Learn how to develop for the cloud, leverage Watson APIs, rearchitect an existing application, or experience the design thinking process in action.

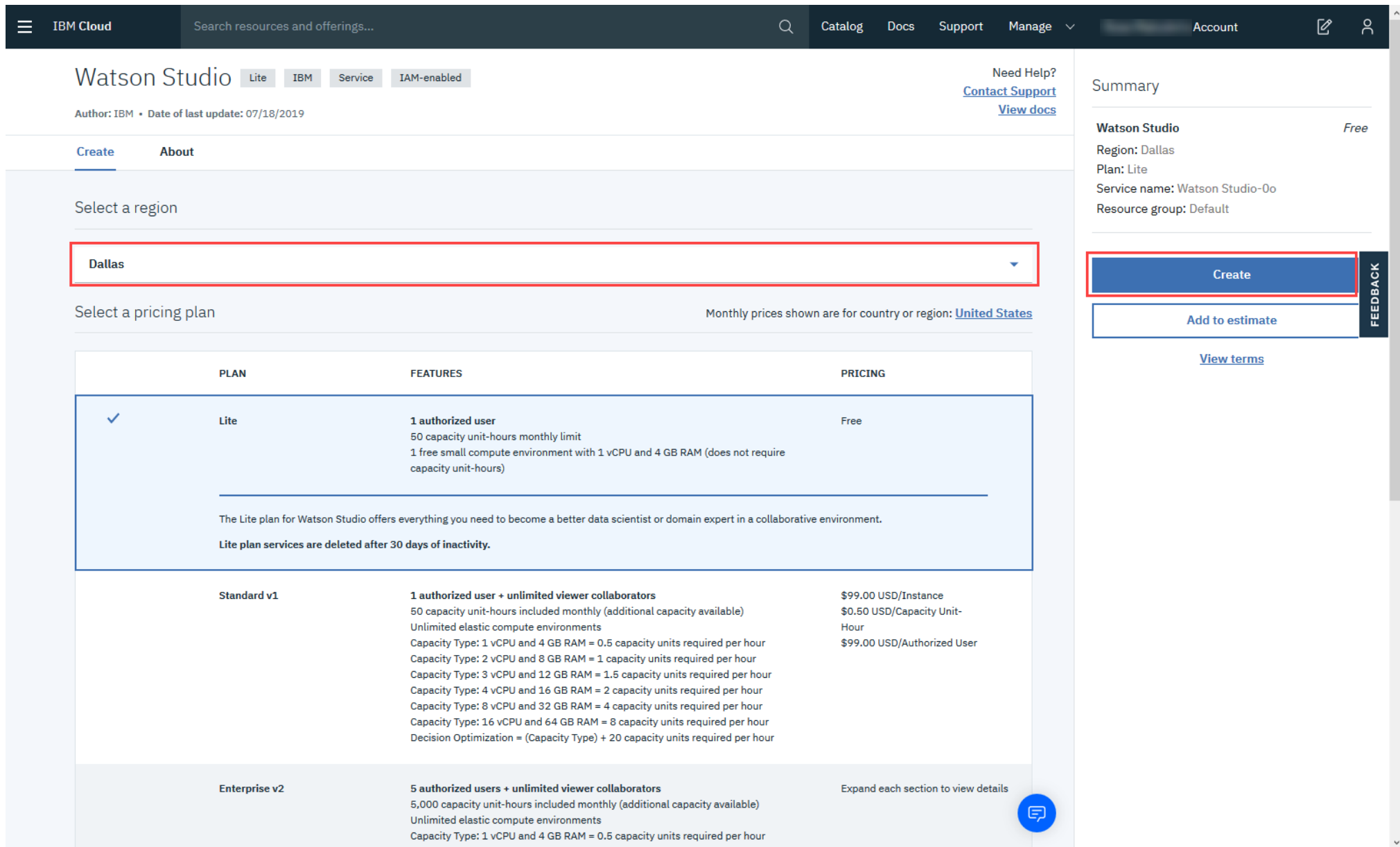
IBM Watson Studio

Collaborate to find insights fast. Visualize and manipulate data with code, graphical tools, or APIs. Develop models and neural networks with powerful algorithms and popular frameworks.

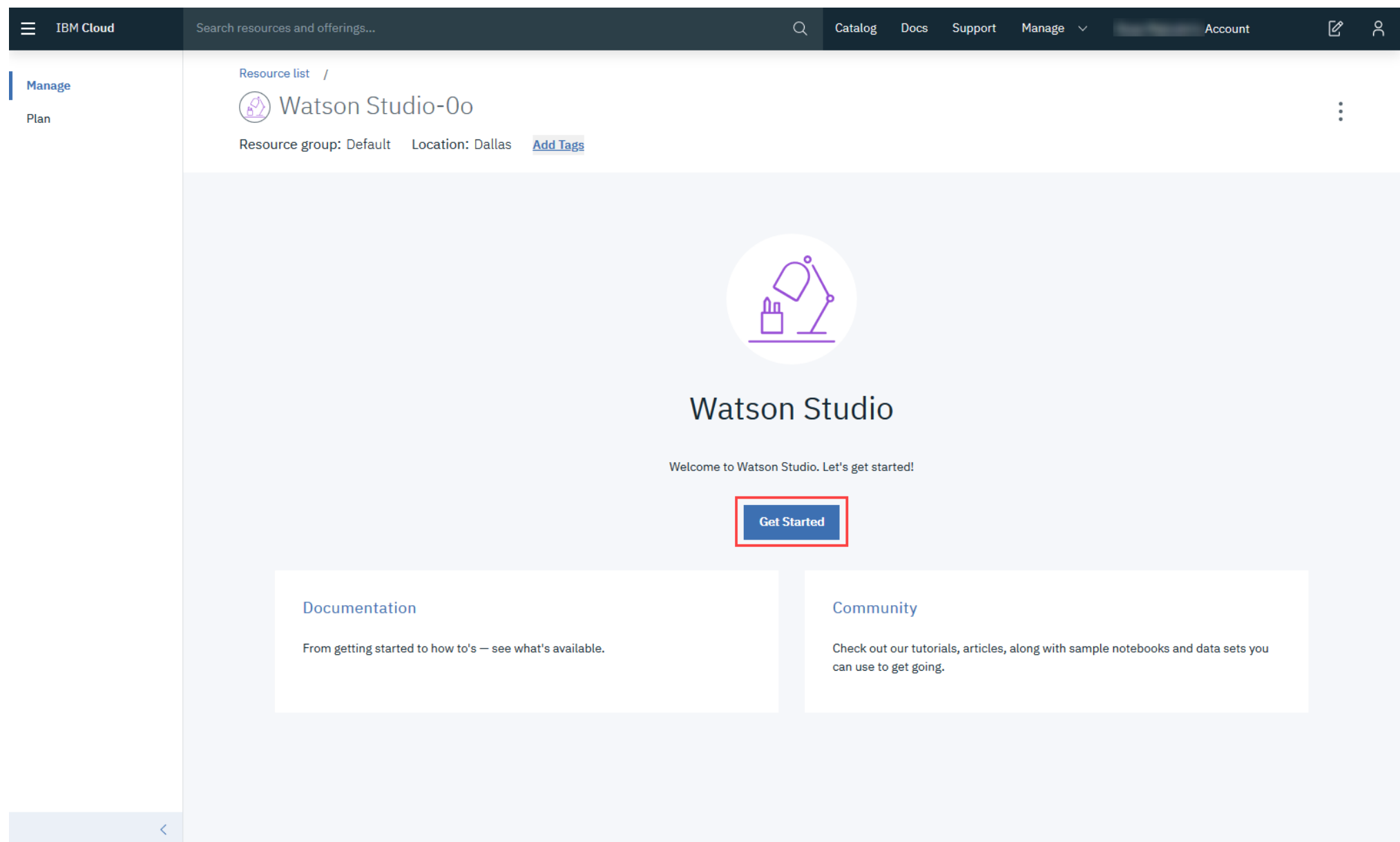
Scroll down and select **Watson Studio - Lite**.



To create a Watson service using the Lite plan, click **Create**.



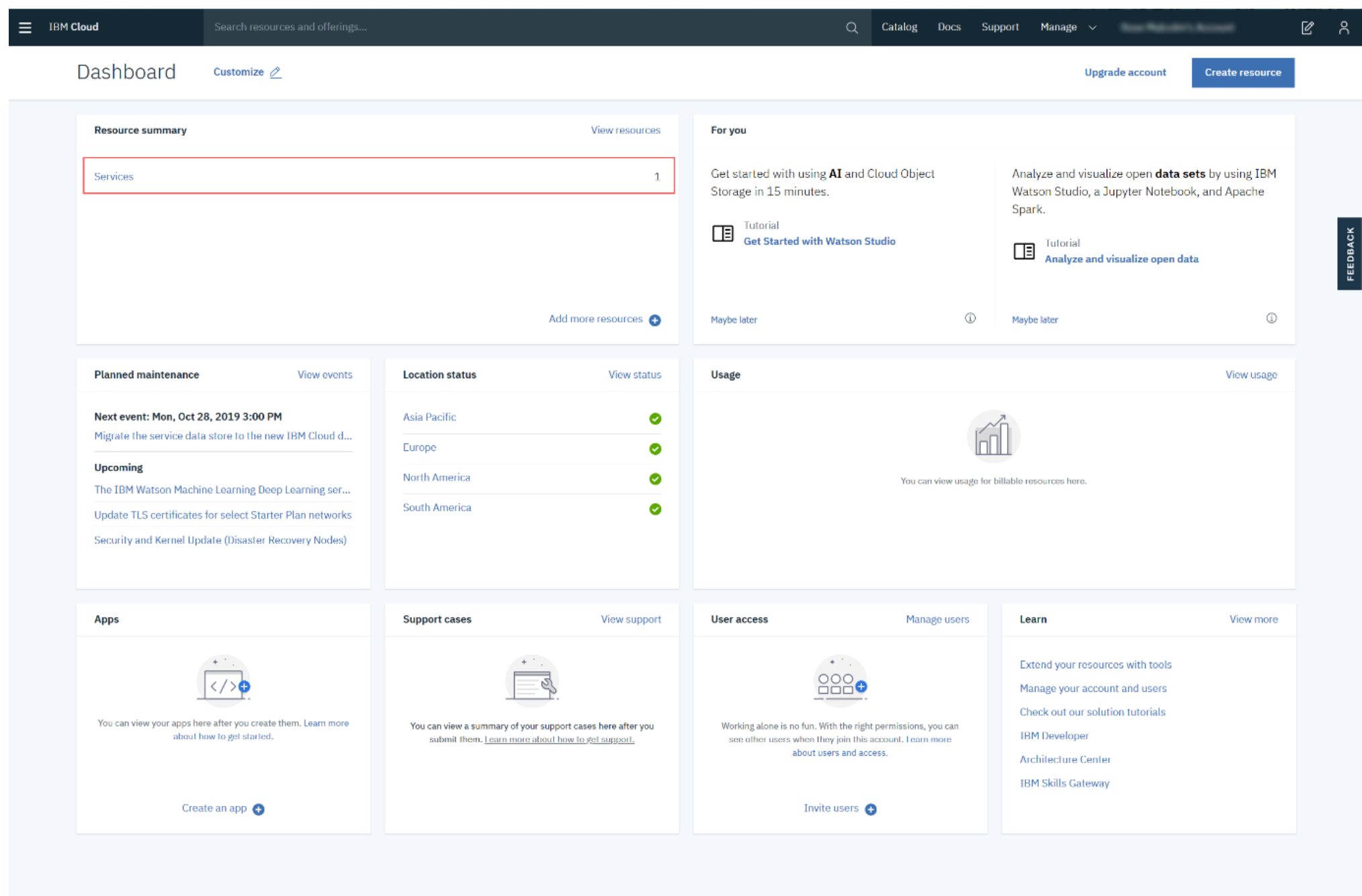
Now click **Get Started**.



After creating the service continue with **Step 2**.

Step 2: For Existing Users (who already have Watson Service):

Go to the IBM Cloud Dashboard and click **Services**.



When you click on Services, all your existing services will be shown in the list. Click the **Watson Studio** service you created:

IBM Cloud

Search resources and offerings...

Q

Catalog

Docs

Support

Manage

IBM Watson Studio

✎

👤

Resource list

Create resource

Collapse all | Expand all

Name ▲	Group	Location	Offering	Status	Tags
🔍 Filter by name or IP address...	Filter by group or org...	Filter...	🔍 Filter...	🔍 Filter...	Filter...
> Devices (0)					
> VPC Infrastructure (0)					
> Clusters (0)					
> Cloud Foundry Apps (0)					
> Cloud Foundry Services (0)					
▼ Services (1)					
🔗 Watson Studio-0o	Default	Dallas	Watson Studio	Provisioned	—
> Storage (1)					
> Network (0)					
> Cloud Foundry Enterprise Environments (0)					
> Functions Namespaces (0)					
> Apps (0)					
> Developer Tools (0)					

FEEDBACK

Then click **Get Started**.

IBM Cloud

Search resources and offerings...

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Support

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Account

✎

👤


Manage

Plan

Resource list /

🔗 Watson Studio-0o

Resource group: Default Location: Dallas [Add Tags](#)



Watson Studio

Welcome to Watson Studio. Let's get started!

Get Started

Documentation

From getting started to how to's — see what's available.

Community

Check out our tutorials, articles, along with sample notebooks and data sets you can use to get going.

Step 3: Creating a Project

Now you have to Create a project.

Click on **Create a project**:

☰

IBM Cloud Pak for Data

Welcome Malika!

Watson Studio • Watson Machine Learning

Learn by example

Solve a specific business problem with a comprehensive tutorial in a sample project.

Take a guided tutorial

Start working

Create a project, add your team, and start preparing, analyzing, or modelling data.

Create a project

Add features

Create services with the tools, data, or other capabilities that you need.


Create a service

On the Create a project page, click **Create an empty project**

← Back

Create a project

Choose whether to create an empty project or to preload your project with data and analytical assets. Add collaborators and data, and then choose the right tools to accomplish your goals. Add services as necessary.




Create an empty project

Add the data you want to prepare, analyze, or model. Choose tools based on how you want to work: write code, create a flow on a graphical canvas, or automatically build models.

NEW AutoAI experiment tool: Fully automated approach to building a classification or re...

USE TO

Prepare and visualize data
Analyze data in notebooks
Train models



Create a project from a sample or file

Get started fast by loading existing assets. Choose a project file from your system, or choose a curated sample project.

USE TO

Learn by example
Build on existing work
Run tutorials

Provide a **Project Name** and **Description**, as shown below:

New project

Define project details

Name

Python Basics for Data Science Project

Description

This is the Python Basics for Data Science Project.

Choose project options

☐ Restrict who can be a collaborator

Project will include integration with [Cloud Object Storage](#) for storing project assets.

Define storage

1 Select storage service

Add

Add an object storage instance and then return to this page and click Refresh.

2 Refresh

Cancel

Create

You must also create storage for the project.

Click **Add**

New project

Define project details

Name

Project name

Description

Project description

Choose project options

☐ Restrict who can be a collaborator

Project will include integration with [Cloud Object Storage](#) for storing project assets.

Define storage

1 Select storage service

Add

Add an object storage instance and then return to this page and click Refresh.

2 Refresh

Cancel

Create

On the Cloud Object Storage page, scroll down and then click **Create**.

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-ML0101EN-SkillsNetwork/labs/FinalModule_Coursera/IBM_Watson_Setup.md.html?origin=www.coursera.org

7/12

IBM Watson Studio

Upgrade

Cloud Object Storage

ExistingNew

Cloud Object Storage

IBM Cloud Object Storage is a highly scalable cloud storage service, designed for high durability, resiliency and security. Store, manage and access your data via our self-service portal and RESTful APIs. Connect applications directly to Cloud Object Storage use other IBM Cloud Services with your data.

Features

Storage for the IBM Cloud

IBM Cloud Object Storage provides unstructured data storage for cloud applications. Libraries and SDKs support a common set of S3 API functions for connecting new applications to scalable cloud storage and integrating your data into other services on the IBM Cloud Platform as well as IBM Watson services. IBM Cloud Object Storage is available with Regional, Cross Region and single site resiliency options worldwide.

Built-in Aspera high-speed transfer

With IBM Cloud Object Storage Aspera high-speed data transfer, you can improve data transfer performance by quickly transferring data over long distances, and under various network conditions. It is natively integrated into Cloud Object Storage and there is no additional cost for uploading data.

Storage Classes and Archive Policy

Choose storage classes based on your usage patterns for active, less-active, and cold workloads with Standard, Vault, and Cold Vault respectively. Use Flex class for dynamic data access with usage patterns that are hard to predict. For rarely used data that requires long-term retention, simply set an Archive policy with our existing storage-class tiers allowing you to reduce costs even further with our lowest priced Archive storage.

Access and Key Management

IBM Identity and Access Management (IAM) policies allow for granular access control at the bucket level using role-based policies. Key Protect support allows customers to have their own managed encryption keys for higher level data security.

Pricing Plan: Monthly Process shown above reflect the: United States

PLAN	FEATURES	PRICING
<div><div><div>Lite</div></div></div>	<div><div>1 COS Service Instance</div><div>Storage up to 25 GB/mo.</div><div>Up to 20,000 GET requests/mo.</div><div>Up to 2,000 PUT requests/mo.</div><div>Up to Data Retrieval 10 GB/mo.</div><div>Up to 5GB Public Outbound</div><div>Applies to aggregate total across all storage bucket classes</div></div>	<div>Free</div>
<div>The Lite service plan for Cloud Object Storage includes Regional and Cross Regional resiliency, flexible data classes, and built in security.</div>		
<div><div><div>Standard</div></div></div>	<div>There is no minimum fee, so you pay only for what you use.</div>	<div>Expand each section to view details</div>

Cancel

Create

In the Confirm Creation box, click **Confirm**.

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-ML0101EN-SkillsNetwork/labs/FinalModule_Coursera/IBM_Watson_Setup.md.html?origin=www.coursera.org8/12



Confirm Creation

Plan

Lite



Resource group

Default



Service name

cloud-object-storage-ai

Cancel

Confirm

On the New project page, note that the storage has been added, and then click **Create**.

IBM Watson Studio

Upgrade

Account/Settings/Avatar

New project

Define project details

Name

Python Basics for Data Science Project

Description

This is the Python Basics for Data Science Project.

Choose project options

☐ Restrict who can be a collaborator

Project will include integration with Cloud Object Storage for storing project assets.

Storage

cloud-object-storage-1c

Cancel

Create

After creating the project continue with Step 3.

Step 3: Adding a Notebook to the Project:

You need to add a Notebook to your project. Click **Add to project**.

IBM Cloud Pak for Data

Upgrade

A Pathak's Account

My projects / Create and share a Jupyter Note...

Launch IDE

Add to project

Overview

Assets

Environments

Jobs

Deployments

Access Control

Settings

Create and share a Jupyter Notebook on IBM Watson Studio

0

1

Last Updated: Jun 26, 2020

Assets

Collaborators

Readme

Overview

Date created

Jun 26, 2020

Description

This is the final assignment for the Tools for Data Science Course.

Storage

0 Byte used

Cloud Object Storage

Collaborators

A Pathak

Admin

View all (1)

Readme

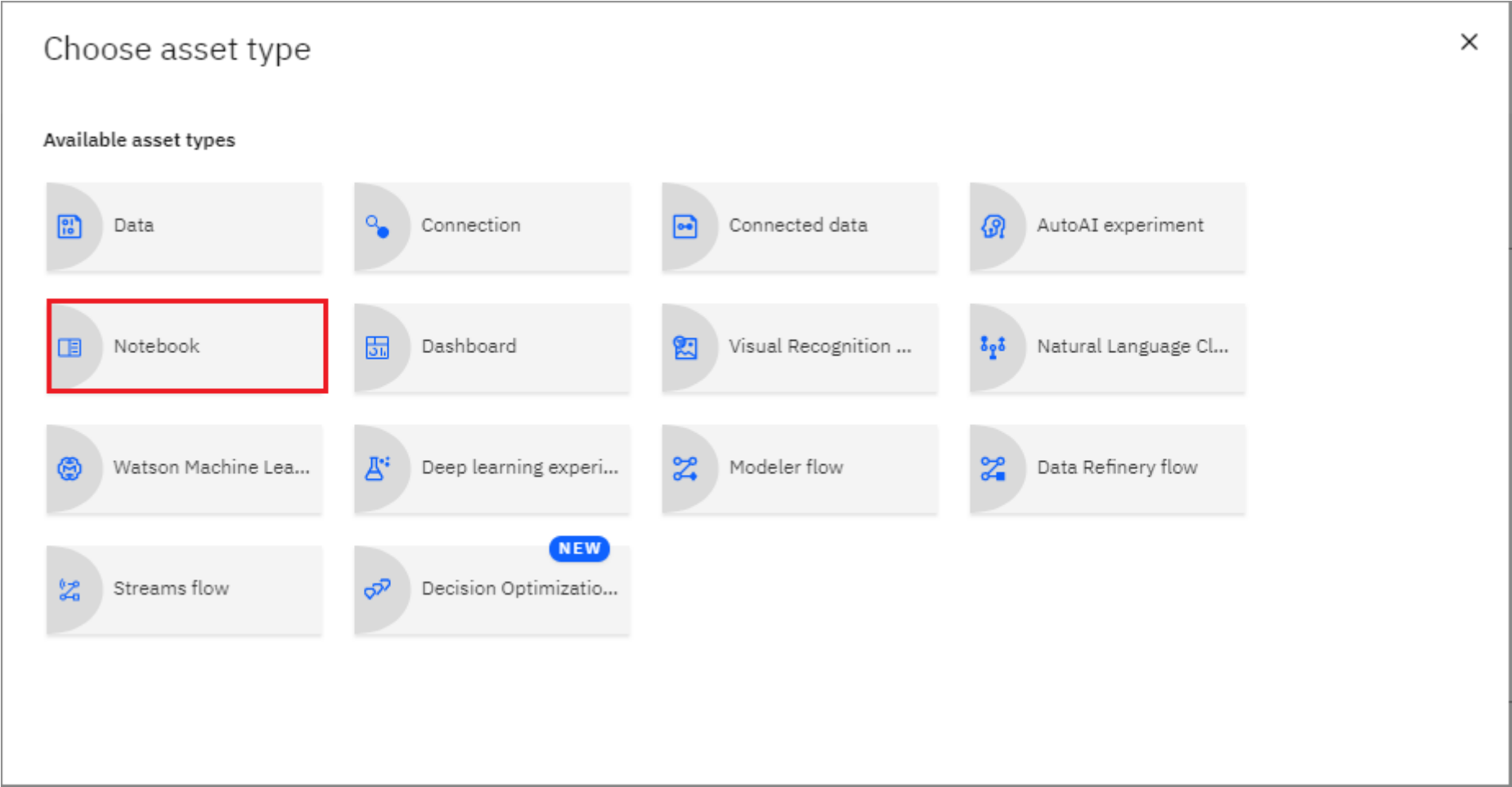
Document your project using standard Markdown syntax. See the [Markdown cheatsheet](#).

Recent activity

Alerts related to this project appear here when the project is active.

Back to top

In the list of asset types, click **Notebook**:

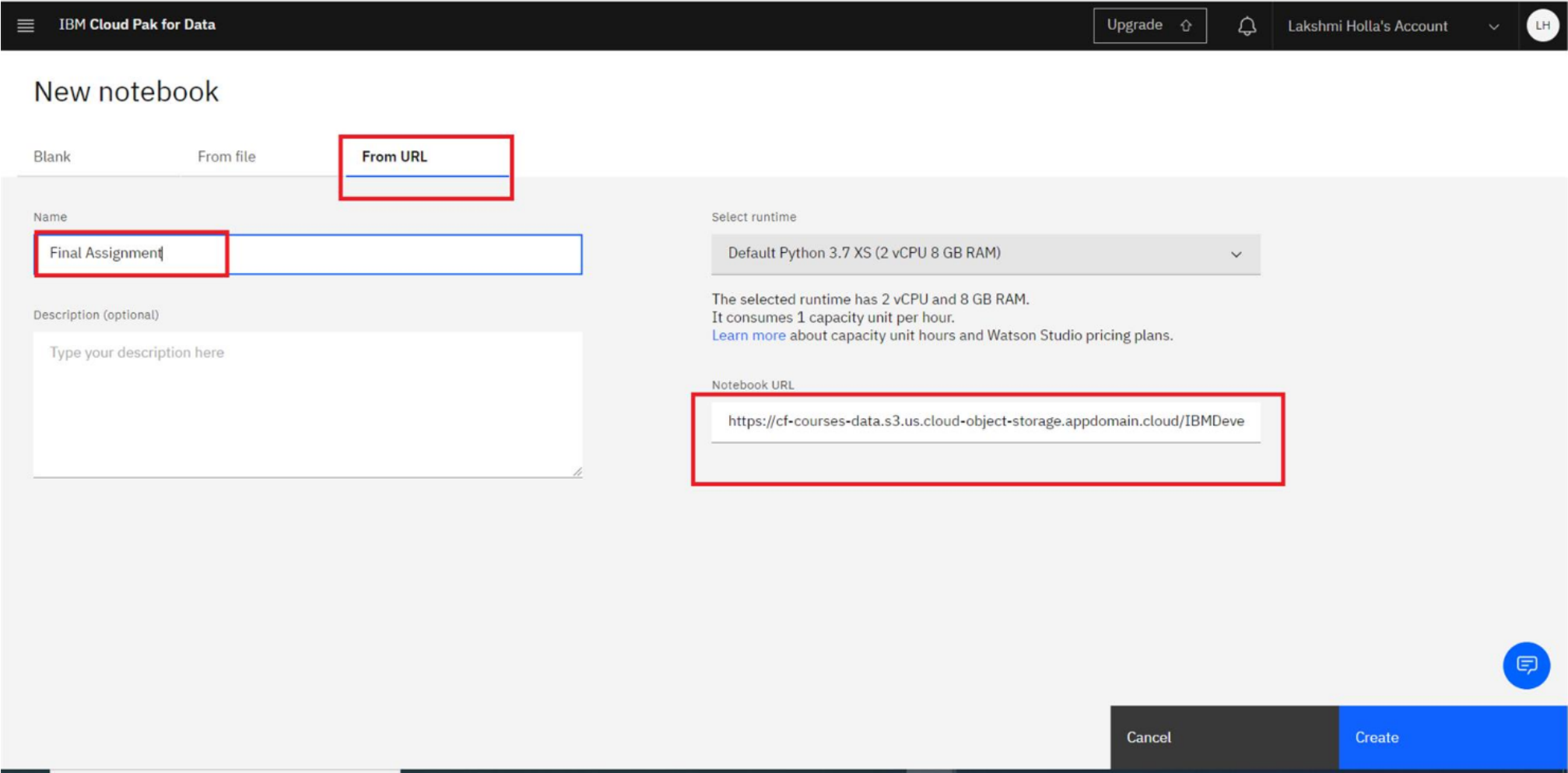


Note: Select the default Python as selected language.

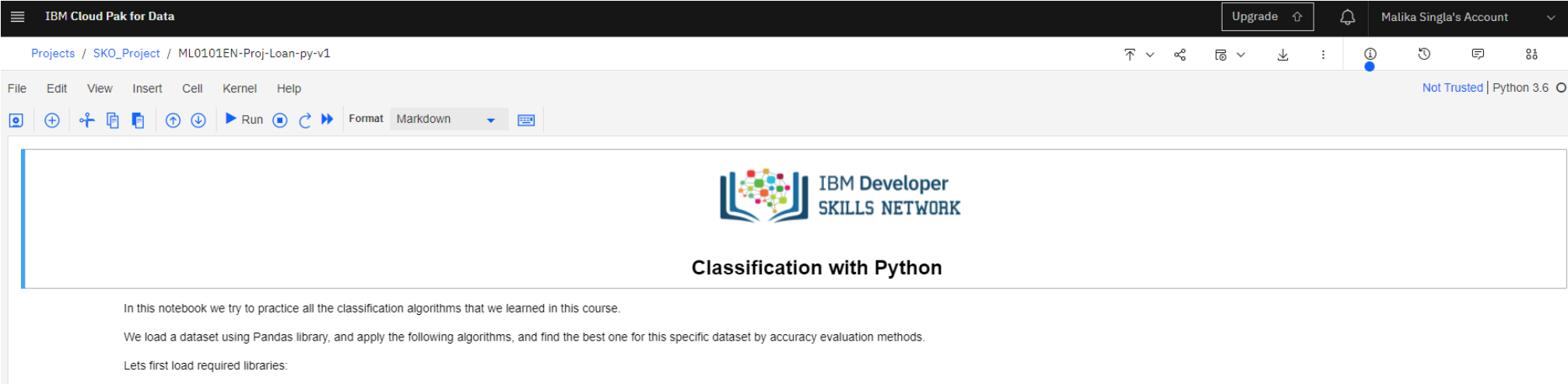
On the New Notebook page, enter a name for the notebook, and then click From URL.

Copy this link: [Click here](#)

Paste it into the **Notebook URL** box, and then click **Create Notebook**.



You will see this Notebook:



Author(s)

Joseph Santarcangelo

Change log

Date	Version	Changed by	Change Description
2020-11-18	2.1	Lakshmi Holla	Updated the screenshot
2020-09-05	2.0	Malika Singla	Updated the screenshot

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